

FIG. 1

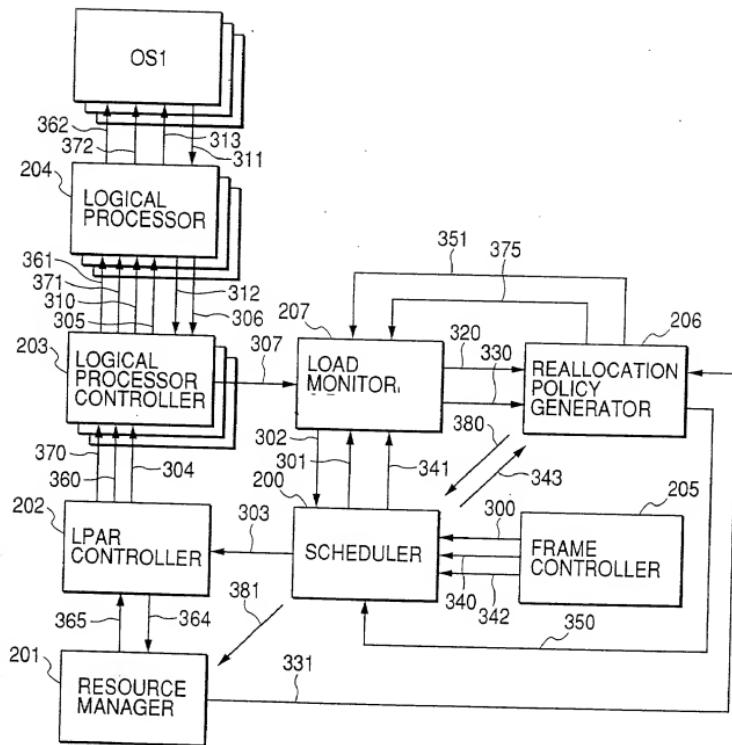


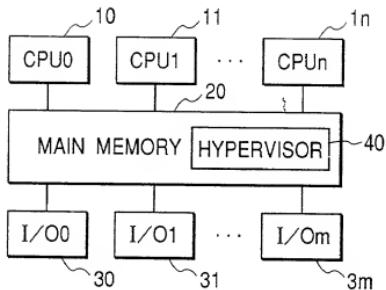
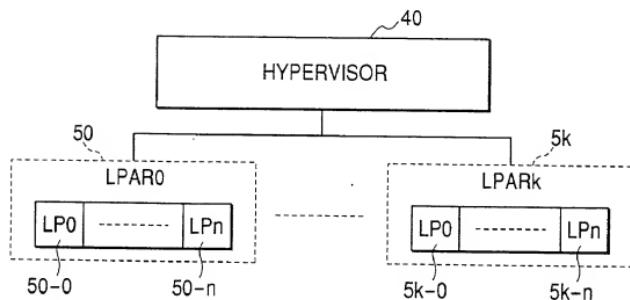
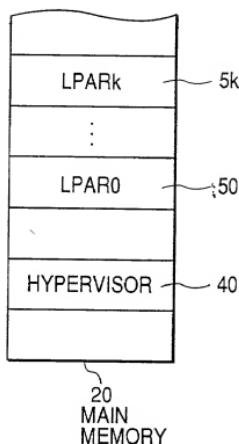
FIG. 2*FIG. 3*

FIG. 4*FIG. 5*

The diagram shows a table titled "CPU ALLOCATION [%]" which is part of the "LPAR INFORMATION TABLE". The table has columns for LPAR NAME, START ADDRESS, MAIN MEMORY SIZE, and CPU allocation percentages for CPU0, CPU1, ..., and CPUn. The table rows correspond to LPAR0, an unnamed row (indicated by three dots), and LPARk. The table is labeled with numbers 101 through 104, which point to specific table entries or column headers. A large bracket at the bottom right points to the entire table structure.

LPAR NAME	START ADDRESS	MAIN MEMORY SIZE	CPU0	CPU1	...	CPUn	104
LPAR0	a	m1	100	50	...	-	101
⋮							102
LPARK	i	mk	-	50	...	100	103

100
LPAR INFORMATION TABLE

FIG. 6

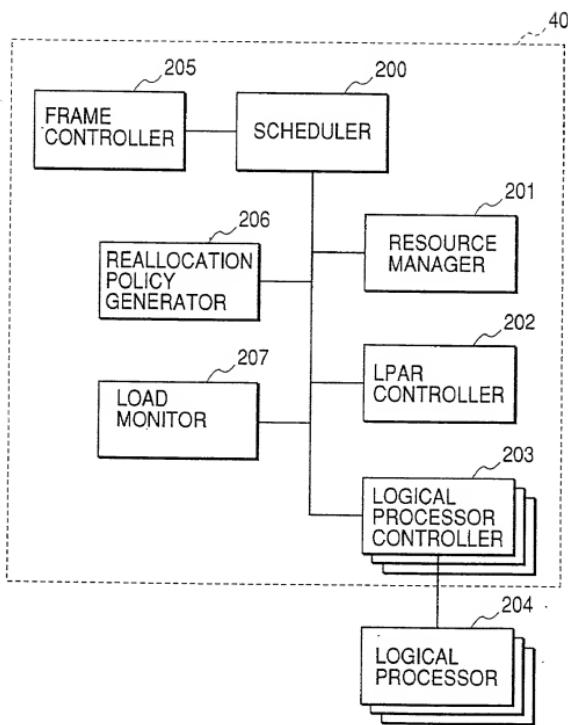


FIG. 7

CPU ALLOCATION (%)

	CPU0	CPU1	CPU2	CPU3
LPAR0	100	50		
LPAR1		50	100	
LPAR2				100

FIG. 8

CPU LOAD

	CPU OCCUPATION RATE (%)/QUEUE LENGTH			
	CPU0	CPU1	CPU2	CPU3
LPAR0	100/5	100/4	-	-
LPAR1	-	10/0	5/0	-
LPAR2	-	-	-	20/0

FIG. 9

NEW CPU ALLOCATION PLAN (%)

	CPU0	CPU1	CPU2	CPU3
LPAR0	100	75	50	30
LPAR1		25	50	
LPAR2				70

900

REALLOCATION POLICY TABLE

FIG. 10

ACTION TABLE

STATUS	PRIORITY	COUNTERMEASURE
CPU OCCUPATION RATIO IS HIGHER THAN IT'S THRETHOLD AND QUEUE LENGTH IS LONGER THAN IT'S THRESHOLD	1	INCREASE OF CPU ALLOCATION TIME AND ADDITION OF A CPU WHICH IS IN IDLING STATE
	2	ADDITION OF A CPU WHICH IS IN IDLING STATE
	3	INCREASE OF CPU
	⋮	
CPU OCCUPATION RATIO IS HIGHER THAN IT'S THRETHOLD AND QUEUE LENGTH IS NOT LONGER THAN IT'S THRESHOLD	1	ALLOCATION TIME
	2	ADDITION OF A CPU WHICH IS IN IDLING STATE
	⋮	
⋮	⋮	

FIG. 11

CPU OCCUPATION RATIO (%) OF OFFERING LPAR	RATIO OF CPU ALLOCATION TIME TO BE RELEASED-FOR ANOTHER LPAR (%)
0~10	50
10~20	40
20~30	30
30~40	20
40~	0

(CPU ALLOCATION TIME TO BE RELEASED)=(PRESENT CPU ALLOCATION TIME)
 \times (RATIO OF CPU ALLOCATION TIME TO BE RELEASED FOR ANOTHER LPAR)

FIG. 12

DAILY FLUCTUATION OF CPU LOAD OF AN LPAR
 (AVERAGED THROUGH SEVERAL DAYS)

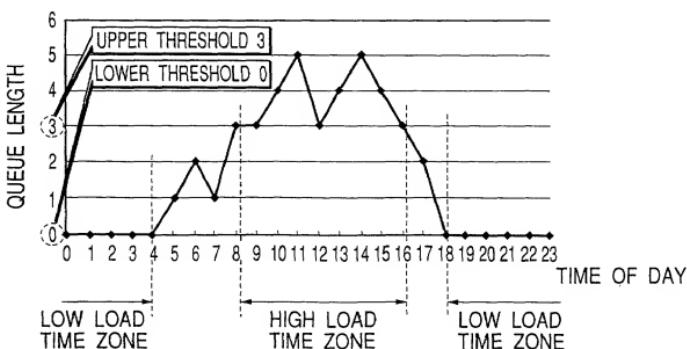


FIG. 13
CPU LOAD SAMPLING DATA OF AN LPAR

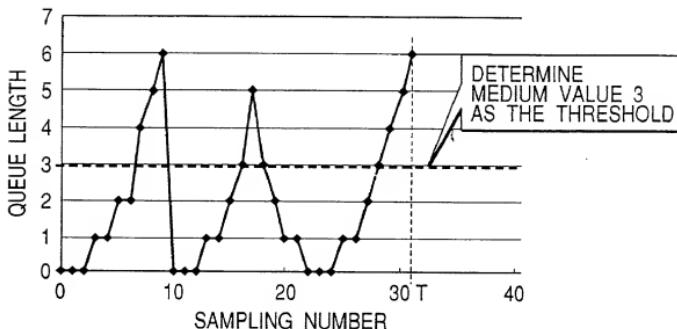


FIG. 14
SPECTRUM OF CPU LOAD SAMPLING DATA

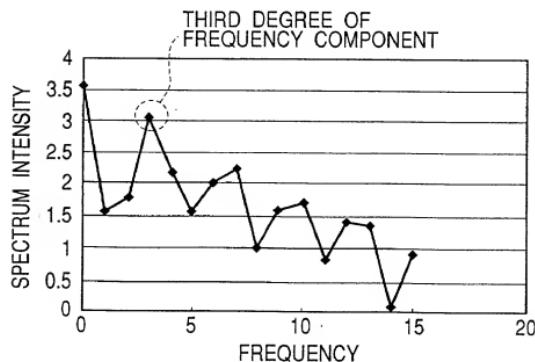


FIG. 15

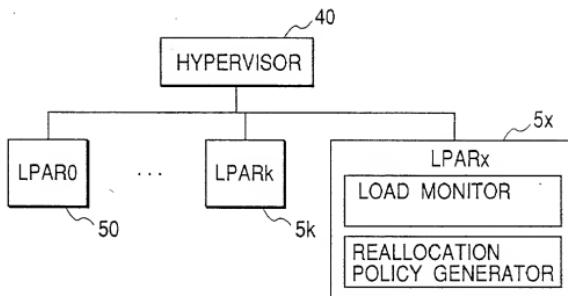


FIG. 16

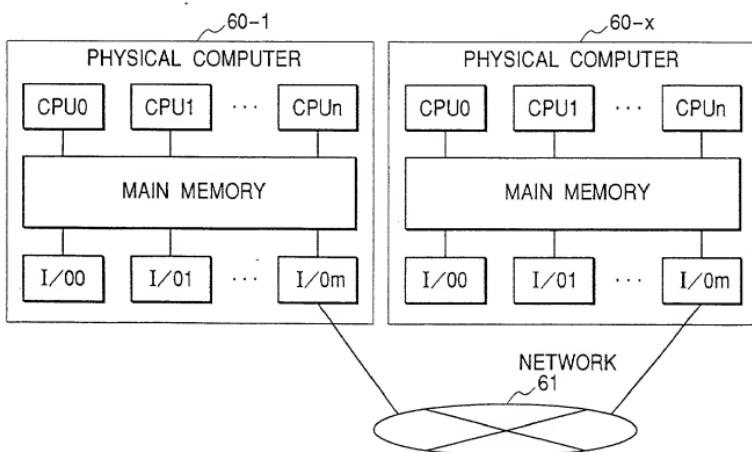


FIG. 17

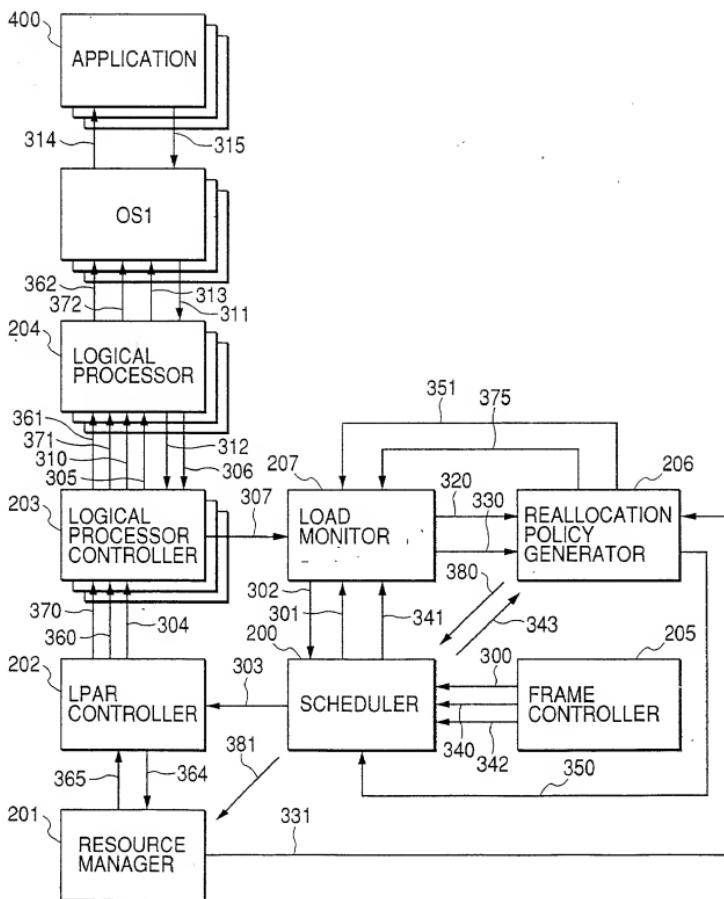


FIG. 18

MEAN APPLICATION RESPONSE TIME

MEAN RESPONSE TIME (sec.)	
LPAR0	10
LPAR1	2
LPAR2	3

FIG. 19

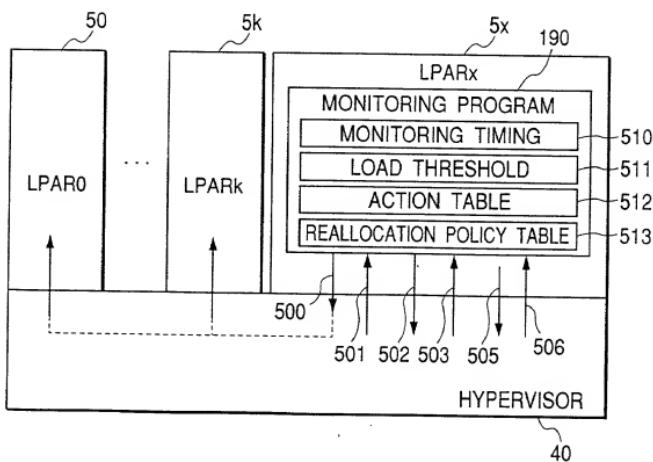


FIG. 20

PROPOSED SYSTEM

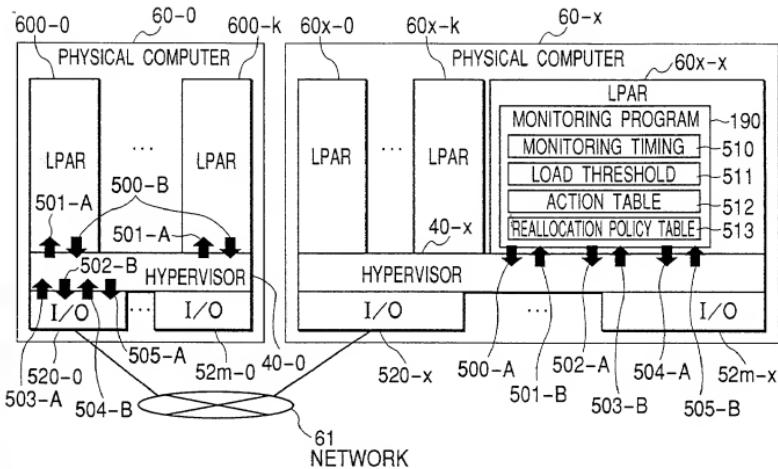
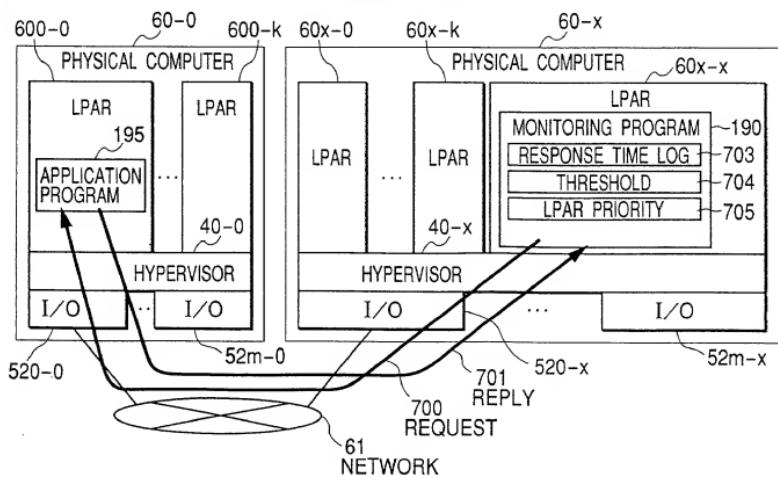
**FIG. 21**

FIG. 22

PRIORITY	COUNTERMEASURES
1	INCREASE OF CPU ALLOCATION RATIO
2	INCREASE OF NUMBER OF CPUs
3	INCREASE OF MAIN MEMORY ALLOCATION
4	INCREASE OF SWAP AREA OF DISK
⋮	⋮

FIG. 23

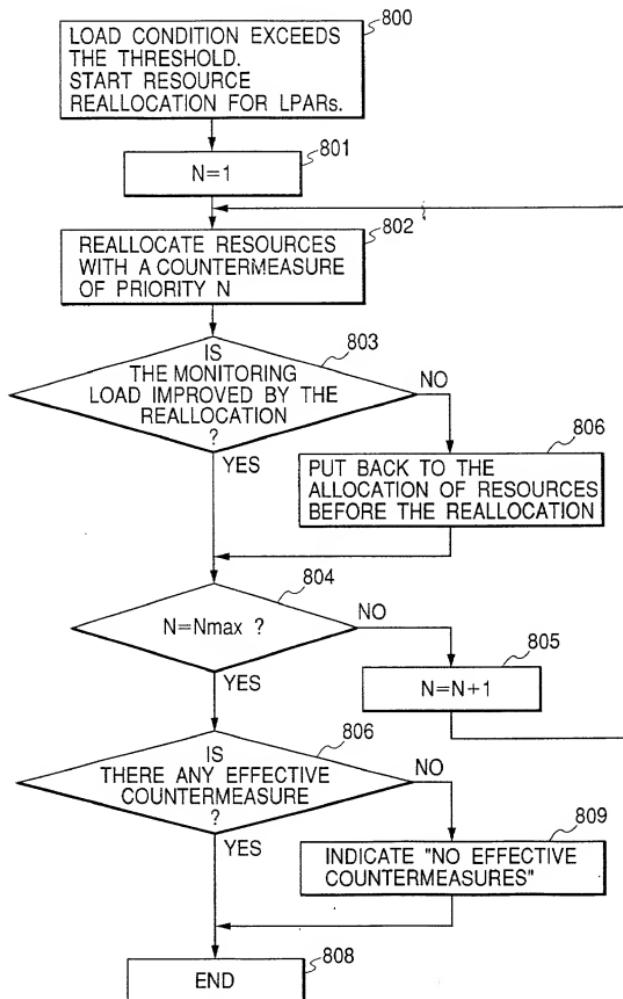


FIG. 24

AGREEMENT CLASS 1000	AGREEMENT FEE 1001
A	PA
B	PB
C	PC

FIG. 25

AGREEMENT CLASS 1000	AGREEMENT FEE 1002	UPPER THRESHOLD 1003	LOWER THRESHOLD 1004
A	1	UTA	LTA
B	2	UTB	LTB
C	3	UTC	LTC

FIG. 26

CUSTOMER 1005	CUSTOMER'S AGREEMENT CLASS 1006	USING LPAR 1007
C0	B	LPAR0
C1	A	LPAR1
C2	C	LPAR2
C3	C	LPAR3

FIG. 27

